



Method And Rake Receiver For Code-Tracking In
Communication Systems

Cross-Reference To Related Application

This application claims priority of European Patent
5 Application No. 00300254.0, which was filed on January 14,
2000.

Description

Field of the Invention

The invention relates to a method and a rake receiver
10 for code-tracking in communication systems in general and in
code division multiple access (CDMA) communication systems
being subject to multipath fading in particular.

Prior Art

15 Digital wireless communication systems are of
increasing interest for all types of data and speech
transmission. A frequently used method in particular for
mobile cellular communications is code division multiple
access (CDMA). For CDMA the signal to be transmitted is
20 typically spread to a multiple of its original bandwidth.
The signal with spread bandwidth is less sensitive to
interference and the spectral power density is reduced.
Commonly, direct sequence CDMA is used, where the signal is
multiplied or correlated by a code sequence before
25 modulation. The spread and correlated symbols are called
chips. Using a plurality of code sequences being orthogonal
to each other a plurality of communication connections can
utilise the same frequency band. Due to the orthogonality of
the codes the transmitted signals can be decoded or
30 decorrelated uniquely in the receiver. An advantageous group

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